

STATEMENT OF LEGAL AND FACTUAL BASIS

Hooker Furniture Corp., Roanoke Plant
2005 Greenbrier Ave, Roanoke, Virginia
Permit No. WCRO-20523

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Hooker Furniture Corp., Roanoke Plant, has applied for a Title V Operating Permit renewal for its wood furniture manufacturing plant in Roanoke. The Department reviewed the application for permit renewal and prepared a draft/proposed Title V Operating Permit.

Engineer/Permit Contact: _____ Date: July 28, 2006

Air Permit Manager: _____ Date: July 28, 2006

FACILITY INFORMATION

Permittee

Hooker Furniture Corp.
440 E. Commonwealth Blvd.
Martinsville, VA 24112

Facility

Hooker Furniture Corp., Roanoke Plant
2005 Greenbrier Ave.
Roanoke, VA 24013

County-Plant Identification Number: 51-770-0088
Registration No.: 20523

First Renewal of Title V Operating Permit

SOURCE DESCRIPTION

NAICS Code: 337122 – Non-upholstered Wood Household Furniture Manufacturing
SIC Code 2511 – Wood Household Furniture Manufacturing

This is a conventional wood household furniture manufacturing plant. It is located at 2005 Greenbrier Avenue, SE in Roanoke City. The plant receives and dries rough sawn lumber, performs various woodworking and furniture assembly operations, and finishes the assembled furniture. The finishes are VHAP compliant high VOC wood furniture coatings, predominantly stains and lacquers, and primarily spray booth applied. All spray booths utilize overspray particulate collection. All wood dust emissions are either controlled by baghouse fabric filters exhausting to atmosphere (four main baghouses), or are enclosed by closed loop cyclones for transferring wood fuel from baghouse collectors and wood hogging to fuel storage.

The main boiler (B1) is a 33.5 million Btu/hr rated input capacity boiler fired with dry wood byproduct that is fed pneumatically from the plant's wood fuel storage silo. Oversized wood is hogged before entering the fuel storage silo. Coal is the boiler's backup fuel. The other boilers are a small 3.4 million Btu/hr No. 2 fuel oil boiler (B4) and a 10.0 million Btu/hr natural gas boiler (B5). Neither the boiler NSPS nor the boiler MACT are applicable to any of these boilers; see the Emission Unit table later.

The facility is a Title V major source due to potential and actual VOC emissions exceeding 100 tons/yr, potential combined HAPS exceeding 25 tons/yr, and potential individual HAPS exceeding 10 tons/yr for methanol, toluene, xylene, and methyl ethyl ketone. All these HAPS are VHAP VOCs from finishing operations. Typical actual emissions of HAPS/VHAPS have decreased to less than 10 tons/yr; see the Emissions Inventory – Actual Emissions Section later.

The wood furniture MACT, 40 CFR 63 Subpart JJ, applies to the facility due to HAP/VHAP potential emissions currently and on the MACT compliance date exceeding 10 and 25 tons/yr for individual and combined HAPS respectively.

This facility is located in an attainment area for all pollutants. It is a PSD definition major source due to VOC PTE emissions exceeding 250 tons/yr, but has not triggered PSD permitting. The Western Virginia VOC and NOx emissions control area regulations have become applicable to the location, but there are no applicable requirements for the current facility. No NSPS applies to anything at the plant.

The overall facility was permitted by the 5-6-83 minor New Source Review (NSR) permit to modify (expand) woodworking operations, replace the finishing operations, and install the main boiler. Except for that permit and the Title V permit, there are no other permits such as NSR or SOP permits.

The original Title V operating permit was issued on June 1, 2001. It will be replaced by this first renewed Title V permit. The applicant submitted a timely and complete Title V permit application for a renewal, which extends, if needed, the terms of the Title V permit until renewal.

COMPLIANCE STATUS

The facility was last inspected on June 12, 2006. It was found to be in compliance.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emission units at this facility consist of the following:

Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device	P.D. ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment							
ES-B (Boilers) (B1, B4)	B1	B1 1983 Hurst boiler, primarily furniture plant dry byproduct <u>wood fuel, backup is coal</u> . Constructed prior to NSPS Dc.	<u>33.5</u> million Btu/hr input rated capacity (2.09 tph wood fuel, or 1.34 tph coal, 26,000 lb/hr steam output). Firetube boiler = not MACT DDDDD.	Multicyclone.	NA	PM/PM-10	5-6-83
	B4	B4, 1972 Continental boiler, <u>No. 2 fuel oil</u> . Constructed prior to NSPS Dc.	<u>3.4</u> million Btu/hr input rated capacity. Firetube boiler (and too small) = not MACT DDDDD.	NA	NA	NA	NA (NSR exempt due to less than 10 MM Btu/hr)
	B5	B5, 1961 package boiler, <u>natural gas only</u> . This boiler was moved to this plant in 2004. Manufactured prior to NSPS Dc.	<u>10.04</u> million Btu/hr input rated capacity. Firetube boiler = not MACT DDDDD.	NA	NA	NA	NA (Exempted from NSR permitting due to gas only at this plant and less than 50 MM Btu/hr.)
Process A							
ES-WD		WOOD-WORKING, all woodworking equipment, including hogging and material transfers.	NA	4 Baghouses control all wood particulate emissions, including woodworking equipment. Enclosed systems (closed loop cyclones) eliminate the need for large baghouses on wood fuel transfers to the fuel silo from baghouse hoppers and from wood hogging.		PM/PM-10	5-6-83

Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device	P.D. ID	Pollutant Controlled	Applicable Permit Date
Process B							
ES-F		FINISHING (several finishing spray booths and related facilities). MACT applies (40 CFR 63 Subpart JJ).	500 lbs/hr VOC permit limit (averaged over 40 operating hours/wk).	Some use water wash spray booth control. Remainder use spray booth dry filters.		PM/PM-10	5-6-83

EMISSIONS INVENTORY – Actual Emissions

Actual plant emissions for calendar year 2004 as listed in the DEQ CEDS annual emission inventory system are summarized as follows:

2004 Actual Pollutant Emissions in Tons per Year						
	CO	VOC	SO ₂	PM ₁₀	NO _x	All HAPs combined (including all VHAPs)
TOTAL	12.1	141.1	8.1	3.7	10.7	6.9

NSPS, MACT, and CAM APPLICABILITY

NSPS - No NSPS applies to anything at the facility. The reasons why NSPS Dc does not apply to each boiler are listed in the Emission Unit Table.

MACT – The Wood Furniture Manufacturing MACT JJ does apply to the facility, especially to Finishing. The facility uses the compliant coating option to meet the applicable MACT JJ requirements. The Boiler MACT DDDDD does not apply to any of the plant's boilers. The reasons are listed in the Emission Unit Table.

CAM – Compliance Assurance Monitoring. CAM does not apply to anything at the facility. CAM could potentially apply to the multicyclone collector controlling the wood/coal Boiler B1, and could potentially apply to the 4 main baghouses controlling Woodworking operations. CAM does not apply to Boiler B1 because PTE is less than 100 tons/yr of uncontrolled PM-10 emissions entering the control device, the multicyclone. CAM does not apply to each woodworking baghouse because PTE is less than 100 tons/yr of uncontrolled PM-10 emissions

for each Woodworking air handling system and therefore entering each control device, each baghouse.

CHANGES TO PLANT

Plant change - The only plant change of Title V interest since the 2001 Title V permit is the addition of Boiler B5, a 10.04 MM Btu/hr rated input capacity boiler fired only with natural gas. It cannot be an insignificant emission unit that the applicant requested because it does not meet the Title V requirement of less than 10 MM Btu/hr rated capacity. For more details, see Permit Changes immediately below.

CHANGES TO PERMIT

Permit changes – The renewed Title V Permit is the original June 1, 2001 Title V Permit with some changes. Significant changes are minimal. They are the following:

- Added Boiler B5, a gas fired 10.0 MM Btu/hr (10.04 MM Btu/hr) boiler to registration (exempt from NSR permit), plus limit fuel to natural gas only (no No. 2 fuel oil) and require record keeping for calendar year quantity of fuel burned for emission inventory purposes. Also note that boiler NSPS Dc does not apply due to being a pre -1989 boiler (1961 boiler relocated from Hooker Furniture's Martinsville plant in 2004), and note that boiler MACT DDDDD does not apply due to being a fire tube boiler.
- For the main Boiler, B1, the emission limitation for TSP was changed to Particulate Matter to be consistent with the Method 5 compliance stack test method for the wood/coal boiler emission limitation. This is the only emissions unit that has much likelihood of compliance stack testing. Also, duplicate BACT citations were eliminated from the emission limitation condition.
- For the main Boiler, B1, due to the General Conditions update noted below in this section, the startup, shutdown and malfunction opacity exemption for new and modified sources was moved to the Boiler B1 limitations section for clarification. This is the only emission unit at the plant with much need for the exemption. The exemption is applicable to this boiler because it is a NSR new boiler constructed after 1972 (to satisfy EPA for T5 permit content per SIP approval).
- Clarified that closed loop cyclones at this plant enclose emissions to eliminate the need for add-on control devices for wood hogs and their material transfer to fuel storage and for woodwaste transfer from baghouse hoppers to fuel storage.
- Changed to address reports to DEQ to the Air Compliance Manager (remains Roanoke).
- Updated applicant personnel.

- The first page was updated to the updated permit boilerplate wording.
- The General Conditions Section was replaced with the updated permit boilerplate. This caused a couple requirements to be relocated elsewhere in the permit.
- Miscellaneous minor refinements. These included refining the “also reference” sections for monitoring, recordkeeping, and reports for boilers, woodworking, and finishing.

REPORTING

- The permittee shall submit calendar year annual Title V Compliance Certifications by each March 1 to DEQ and to EPA.
- The permittee shall submit semi-annual Title V Reports by each March 1 and September 1 to DEQ. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.
- The permittee shall submit semi-annual Wood Furniture Manufacturing MACT (40 CFR 63 Subpart JJ, MACT JJ) Reports by each March 1 and September 1 to DEQ and to EPA. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.
- The permittee shall report to DEQ within 4 daytime business hours after discovery any malfunctions and any deviations from permit requirements, that may cause excess emissions for more than one hour. A written statement with the pertinent information shall be submitted to DEQ within 14 days of discovery.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. Selected requirements are noted below.

B. Permit Expiration

This condition refers to the five year permit term, to the permittee’s responsibility to apply for renewal, to the Board taking action on a permit application, and to the prior terms and conditions remaining in effect until the renewal is issued or denied. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.1-20.01:2 and §10.1-1185 of the *Code of Virginia*, and the “Department of Environmental Quality Agency Policy Statement No. 3-2001”.

J. Permit Modification

This general condition cites the sections that follow:

- 9 VAC 5-80-50. Applicability, Federal Operating Permit For Stationary Sources
- 9 VAC 5-80-190. Changes to Permits.
- 9 VAC 5-80-260. Enforcement.
- 9 VAC 5-80-1100. Applicability, Permits For New and Modified Stationary Sources
- 9 VAC 5-80-1790. Applicability, Permits For Major Stationary Sources and Modifications Located in Prevention of Significant Deterioration Areas

U. Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F.

This condition cites the sections that follow:

- 9 VAC 5-20-180. Facility and Control Equipment Maintenance or Malfunction
- 9 VAC 5-80-110. Permit Content

Y. Asbestos Requirements

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

This general condition contains a citation from the Code of Federal Regulations that follow:

- 40 CFR 61.145, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to demolition and renovation.
- 40 CFR 61.148, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to insulating materials.
- 40 CFR 61.150, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to waste disposal.

STATE ONLY APPLICABLE REQUIREMENTS

This permit contains no State Only Applicable Requirements

FUTURE APPLICABLE REQUIREMENTS

No future applicable requirements have been identified for this facility. The Wood Furniture Manufacturing MACT is already applicable to the plant, especially to finishing. The boiler MACT does not apply to the plant's boilers due to the reasons listed in the table of Emission Units. CAM is not applicable as explained in the CAM Section.

INAPPLICABLE REQUIREMENTS

The startup, shut down, and malfunction opacity exclusion listed in 9 VAC 5-40-20 A 3 (for pre-1972 existing emission units) cannot be included in any Title V permit because this portion of the regulation is not part of the federally approved state implementation plan (SIP). The opacity standard applies to existing sources at all times including startup, shutdown, and malfunction. Opacity exceedances during malfunction can be affirmatively defended provided all requirements of the affirmative defense section of this permit are met. Opacity exceedances during startup and shut down will be reviewed with enforcement discretion using the requirements of 9 VAC 5-40-20 E, which state that "At all times, including periods of startup, shutdown, soot blowing and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions."

In contrast, the similar startup, shut down, and malfunction opacity exclusion listed in 9 VAC 5-50-20 A 4, for emissions units that are new or modified since 1972, is SIP approved and therefore applies to such emissions units. This exclusion has now been specifically included with the opacity limitation for the post-1972 wood/coal boiler B1.

COMPLIANCE PLAN

This facility is not subject to a compliance plan.

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110. Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (and 9 VAC 5-80-720 A or C)
N/A	Three (3) Lumber Dry Kilns	VOC (approx. 0.3 tpy)	
N/A	Gluing	VOC (approx. 2.7 tpy)	
N/A	Emergency Diesel Fire Pump		235 hp 9 VAC 5-80-720 C
N/A	Maintenance Parts Washer		9 VAC 5-80-720 A

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

The draft/proposed permit was advertised for public notice in the *Roanoke Times* on June 11, 2006. The required 30-day public notice period closed on July 11, 2006. No comments were received.

The EPA 45 day concurrent review period was June 11, 2006 through July 26, 2006. No comments were received.

This permit was advertised for *concurrent review*.

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